

# LVDH

## Low Vacuum Dehydration

Low Vacuum dehydration does efficiently what centrifuging can never do.



FUNCTION OF CATALYSTS				
Test	Catalysts (Metal)	Water	Time (Hrs)	Acid Value
1	nil	nil	3,500	0.17
2	nil	exists	3,500	0.90
3	iron	nil	6,500	0.65
4	iron	exists	400	8.10
5	copper	nil	3,000	0.89
6	copper	exists	100	11.20

**Note:** 1. Time: hours for reaching a certain level of acid value.  
2. Test oil is of 32cSt/100°F (40°C)  
3. Tested oil temperature is 200°F (93°C)

Acid value indicates formation of "Sludge" and sticky resinous matter which forms hard deposits on valves, pipes.

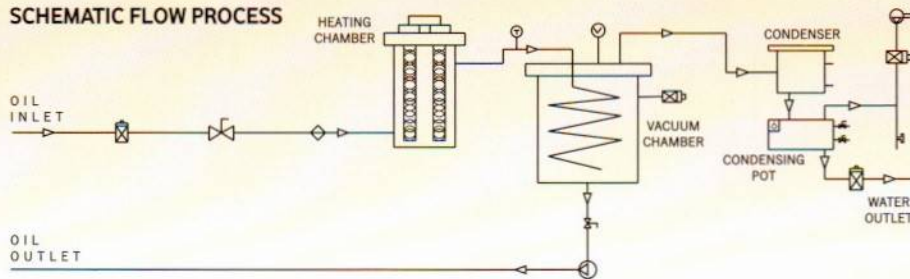
## For removal of moisture & gases from oil

The LVDH unit uses a comprehensive process to remove water and gases from oil at temperature lower than 53°C, thus drastically reducing oxidation during the dehydration process. The LVDH is a quick, inexpensive and automatic system that overcomes centrifuging's major drawbacks, especially that of promotion of oxidation because of high temperature, inability to remove emulsified water, high power consumption & high maintenance costs.

### Working:

Oil is drawn into the vapouriser via the vacuum pump and heater. Water boils below 53°C under vacuum - an efficient condenser collects evaporated water. Dissolved air and gases from oil are bled to the atmosphere via the vacuum pump.

### SCHEMATIC FLOW PROCESS



### Features:

- Fully automatic operation.
- Ultimate water removal through oil recirculation - to zero-free water content or to 50 % below saturation level.
- Reduces water content in a single pass by 0.25% - 1.5% depending on inlet oil temperature.
- Removal of soluble gases and air.

### Application Areas:

- Hydraulic oils
- Turbine oils
- Lubricating oils
- Gear oils
- Synthetic Oils.

### SELECTION GUIDE All figures are indicative only

Conventional Hydraulics (max. quantity)					
Model	Capacity	Condensor	Weight (Kg)	Dimensions L x W x H (mm)	Power
LVDH-600	8-10 L/min	Refrigerated	390	1470 x 785 x 1480	6kw @ 415 VAC 3P+N+E (50Hz)
LVDH-900	13-15 L/min	Refrigerated	480	1470 x 785 x 1480	8kw @ 415 VAC 3P+N+E (50Hz)
LVDH-2100	30-35 L/min	Refrigerated	600	1575 x 945 x 1580	16kw @ 415 VAC 3P+N+E (50Hz)
LVDH-3000	40-50 L/min	Refrigerated	650	1610 x 1050 x 1460	16kw @ 415 VAC 3P+N+E (50Hz)
LVDH-6000	80-100 L/min	Refrigerated	850	2100 x 1455 x 1945	24w @ 415 VAC 3P+N+E (50Hz)

Specifications subject to change without prior notice.



## The Integrated Unit

Removes free and emulsified moisture and suspended particulate matter from hydraulic & lubricating oils.

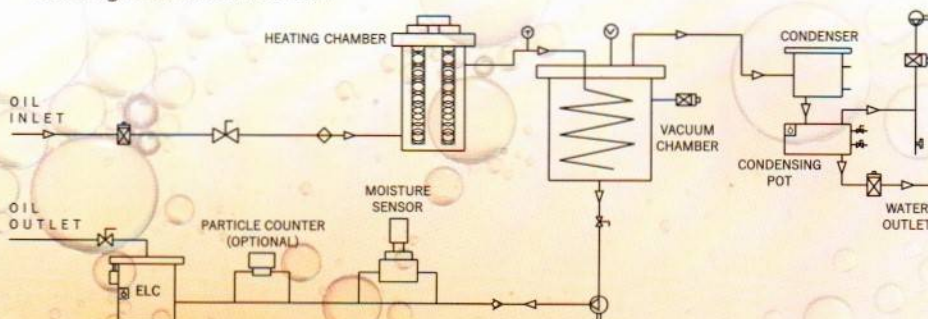


All units offered with IOT & MODBUS Processors

Transmit data to your android phone or computer in real time.

## Benefits of ELC & LVDH In a Single Platform

- Automatically read moisture level in ppm or water solubility
- Automatically read particulate purity in NAS / ISO
- Read out on android smart phone / computer in real time
- Self diagnostic touch screen



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Conventional Hydraulics (max. quantity)					
Model	Capacity	Condensor	Weight (Kg)	Dimensions L x W x H (mm)	Power
I-600	8-10 L/min	Refrigerated	610	1470 X 1320 X 1260	6 Kwh @415 Volts,3Ø, 50Hz
I-900	13-15 L/min	Refrigerated	700	1470 X 1350 X 1260	8 Kwh 415 Volts,3Ø, 50Hz
I-2100	30-35 L/min	Refrigerated	865	1745 X 1560 X 1260	16 Kwh 415 Volts,3Ø, 50Hz

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